

5.2 LIND/WEBSTER CONCEPT REVIEW

The City of North Mankato expressed concerns about the planned concept for the Lind/Webster intersections during the TH 169 IRC Corridor Plan. The city expressed concerns with respect to the location of the planned overpass and how it functioned with respect to current businesses. As a result, additional data collection and analysis was done to assess the impact of the proposed design on existing traffic patterns.

To evaluate the impact of the proposed MATAPS concept, existing p.m. peak hour traffic volumes at the intersections of TH 169/Lind Street and TH 169/Webster Avenue were analyzed for the current signalized and proposed freeway conditions. The analysis looked at the circuitousness of movements and the potential increase in travel time for each movement. Based on this analysis, the movements were then placed into one of four impact categories: positively impacted, no change, marginally impacted and negatively impacted. Table 9 summarizes the results of this analysis.

As shown in Table 9, most of traffic (70 percent) at the TH 169/Lind Street and TH 169/Webster Avenue intersections would be positively affected by the proposed concept. This is because most traffic at these intersections is traveling northbound or southbound through Lind Street and Webster Avenue, and would not need to stop under proposed conditions. Another 14 percent of existing traffic at the two intersections would continue to make right-turn movements to/from TH 169 using the proposed freeway ramps instead of right-turn lanes. These movements would have similar travel distances and patterns and therefore would not be impacted by the proposed concept design. This leaves 16 percent of vehicles that would be marginally or negatively impacted under the proposed concept design. It is important to note that the movements that are negatively affected at Lind Street and Webster Avenue are relatively similar in magnitude. Therefore, the concept design balances the impacts between the two intersections.

TABLE 9
Impact of Proposed Concept Design

Impact Category	Magnitude¹ (vehicles)	Effect of Proposed Design
Positively Mainline throughs	2,978 (70 percent)	Less stops and fewer rear-end crashes on mainline TH 169.
No Change Mainline and sidestreet rights	619 (14 percent)	Existing right turns to/from mainline TH 169 will use ramps.
Marginally Sidestreet rights and sidestreet and mainline lefts (near)	280 (7 percent)	Must use frontage roads for TH 169 access; limited out-of-direction travel.
Negatively Sidestreet throughs and lefts and Mainline lefts (far)	405 (9 percent)	Must use frontage roads for TH 169 access; out-of-direction travel required. Negatively impacted movements balance between Lind and Webster.

(1) Based on p.m. peak hour volumes (2002).